

REMARKS/ARGUMENTS

In the Office Action of December 31, 2008, claims 1-13 are rejected. In response, claims 1, 4, 6 and 10-13 have been amended. Additionally, new claims 14-20 have been added. Applicants hereby request reconsideration of the application in view of the claim amendments, the new claims and the below-provided remarks.

Claim Rejections under 35 U.S.C. 102 and 35 U.S.C. 103

Claims 1 and 10-13 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Kim (WO 00/77961). Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Kim in view of Mizoghuchi et al. (EP 1,071,251, hereafter “Mizoghuchi”). Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Kim in view of Mizoghuchi and further in view of Ward (U.S. Pat. No. 6,754,170). Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Kim in view of Ward. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Kim in view of Ward and in further view of Mizoghuchi.

In response, claims 1, 4, 6 and 10-13 have been amended and new claims 14-20 have been added. Applicants respectfully submit that the pending claims are patentable over the cited references for the reasons provided below.

Independent Claim 1

Claim 1 has been amended to correct informalities and to recite in part that “*the result of the coarse time synchronisation performed by the first part (23) is not used by the second part (24) to perform the fine time synchronisation.*” Support for the amendment is found in Applicants’ specification at, for example, page 2, lines 9-19 and page 13, lines 1-7.

In the Office Action, Kim is cited for disclosing or teaching “a first part (23) for performing a coarse time synchronisation through autocorrelating samples of a group of preamble symbols” and the “a second part (24) for performing a fine time synchronisation through crosscorrelating samples of a further group of preamble

symbols” of original claim 1. Applicants respectfully assert that Kim does not disclose or teach that *“the result of the coarse time synchronisation performed by the first part (23) is not used by the second part (24) to perform the fine time synchronisation,”* as recited in amended claim 1. On the contrary, Kim discloses or teaches the opposite of the above-identified limitation of amended claim 1.

In particular, Kim discloses or teaches an autocorrelation unit (21), a frequency synchronization unit (22), a frequency offset compensation unit (23) and a cross-correlation unit (24) (see Fig. 2 and page 5, lines 18-29). The autocorrelation unit (21) outputs a normalized autocorrelated value and the frequency synchronization unit (22) obtains a frequency offset value based on the normalized autocorrelated value (see Fig. 3, steps 304-312, and the description between page 6, line 18 and page 7, line 24). The frequency offset compensation unit (23) performs frequency offset compensation on a received signal using the frequency offset value to generate a frequency offset-compensated signal (see Fig. 3, step 316, and page 7, lines 28-30). The cross correlation unit (24) performs cross correlation using the frequency offset-compensated signal and a reference signal (see Fig. 3, step 318, and page 7, lines 8-11). Thus, the cross correlation unit (24) performs cross correlation using the result of the autocorrelation unit (21). That is, Kim discloses or teaches that the result of the coarse time synchronisation is used to perform the fine time synchronisation. Accordingly, Applicants respectfully assert that Kim fails to disclose or teach the above-identified limitation of amended claim 1.

Thus, Applicants respectfully assert that amended claim 1 is patentable over the recited references.

Dependent Claims 2-9

Claim 4 has been amended to replace the phrase “adapted to” with the phrase “configured to.” Claim 6 has been amended to correct informalities. Claims 2-9 depend from and incorporate all of the limitations of independent claim 1. Thus, Applicants respectfully assert that claims 2-9 are allowable at least based on an allowable claim 1.

Independent Claims 10-13

Claims 10-13 have been amended in a similar fashion as claim 1 to include limitations similar to amended claim 1. Additionally, claims 10-13 have been amended to correct informalities. Support for the amendments to claims 10-13 is found in Applicants' specification at, for example, page 2, lines 9-19 and page 13, lines 1-7. Because of the similarities between amended claims 10-13 and amended claim 1, Applicants respectfully assert that the remarks provided above with regard to amended claim 1 apply also to amended claims 10-13. Accordingly, Applicants respectfully assert that amended claims 10-13 are patentable over the recited references.

New claims 14-20

New claims 14-20 have been added. Support for claims 14-16 is found in Applicants' specification at, for example, original claim 1, Fig. 2, page 7, lines 13-23, and page 9, lines 18-23. Support for claim 17 is found in Applicants' specification at, for example, original claim 1, page 8, lines 25-26, and page 9, lines 9-12. Support for claims 18 and 19 is found in Applicants' specification at, for example, original claim 7, Fig. 2 and page 8, lines 22-28. Support for claim 20 is found in Applicants' specification at, for example, original claim 9 and page 9, lines 23-29.

New claims 14-20 ultimately depend from and incorporate all of the limitations of independent claim 1. Therefore, Applicants respectfully assert that claims 14-20 are allowable at least based on an allowable claim 1. Additionally, claims 14-20 may be allowable for the individual limitations of claims 14-20.

CONCLUSION

Applicants respectfully request reconsideration of the claims in view of the claim amendments, the new claims and the remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,
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